



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,985

05/10/2006

Eiji Muramatsu

8048-1149

1785

466 7590 04/28/2010

YOUNG & THOMPSON  
209 Madison Street  
Suite 500  
Alexandria, VA 22314

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2627

NOTIFICATION DATE

DELIVERY MODE

04/28/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,985	<b>Applicant(s)</b> MURAMATSU ET AL.	
	<b>Examiner</b> Kim-Kwok CHU	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendment & Remarks filed on 11/17/2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17, 20-23, 25-31 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17, 20-23, 25-31 and 33-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/30/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2627

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -  
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

2. Claims 17, 20-23, 25, 26, 33 and 34 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al. (U.S. Patent 7,113,475).

3. Lee teaches an information recording medium having all of the elements and means as recited in claims 17, 20-23, 25, 26, 33 and 34. For example, Lee teaches the following:

Regarding Claim 17, the information recording medium comprising a plurality of recording layers to record therein information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (Fig. 1; lead-in is a management information area because it records control information; column 4, lines 1-4) to record at least (i) first recording condition information 30a, 30b (Fig. 1) which indicates a first optimum recording condition for a first recording layer of the plurality

Art Unit: 2627

of recording layers (test information is obtained from a respective tested layer) when the information is recorded into the first recording layer and (ii) a second recording condition information 30a, 30b (Fig. 1) which indicates a second optimum recording condition for a second recording layer of the plurality of recording layers (test information is obtained from a respective tested layer) when the information is recorded into the second recording layer, at least (i) a first recording speed information 35 (Fig. 2; column 5, lines 10-16) which indicates a first recordable maximum speed for the first recording layers and (ii) a second recording speed information 35 which indicates a second recordable maximum speed for the second recording layer which indicates a second recordable maximum speed for the second recording layer are recorded in the management information area (Figs. 2 and 3B; each layer has its maximum speed verified and recorded; column 5, lines 10-16), the first recording condition information 30a, 30b for the first recording layer is recorded in the management (lead-in) information area, correspondingly to the first recording speed information (Fig. 1; format speed is recorded in 10, and test speed is recorded in 35), the second recording condition information for the second recording layer is recorded in the management information area correspondingly to the second recording speed information (Fig. 1; format speed

Art Unit: 2627

is recorded in 10, and test speed is recorded in 35), the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording condition information 35 with respect to the plurality of recording layers is collectively recorded (Figs. 3A and 3B; maximum speed is collectively recorded in b4-b7), the first and second recording condition information (test zone data) include strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

Regarding Claim 20, a table (Fig. 2) on which the first and second recording speed information and the first and second recording condition information are registered (recorded) for each of the plurality of recording layers, and which has an index (number), is recorded in the management information area (Figs. 3A and 3B).

Regarding Claim 21, identification information 10a (Fig. 1) for identifying the information recording medium is recorded in the management information area (Fig. 1).

Regarding Claim 22, the recording condition information is at least partially recorded (pre-recorded by manufacturer) from the beginning of production of the information recording medium,

Art Unit: 2627

as pre-information of the information recording medium (Fig. 1; column 4, lines 5-10).

Regarding Claim 23, the first and second recording condition information 30 (Fig. 1) are at least partially recorded or updated (re-recordable), as written-once or rewritable information (Fig. 1).

Regarding Claim 25, the management information area (lead-in) is disposed in each of the recording layers (Fig. 1; each recording layer has its lead-in area).

Regarding Claim 26, the first and second recording speed information 30 is defined to indicate a higher speed (maximum) in an upper layer side out of the plurality of recording layers (Figs. 3A and 3B; one layer has a maximum speed information recorded).

Regarding Claim 33, the first and second recording condition information 30 includes optimum power information (disc test) of laser for recording (Fig. 1).

Regarding Claim 34, the management area (lead-in) contains the first and second recording speed information (Fig. 4; column 5, lines 24-40).

Art Unit: 2627

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

5. Claims 27, 28, 31, 35 and 36 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Lee et al. (U.S. Patent 7,113,475) in view of Ito et al. (U.S. Patent 7,184,377).

6. Lee teaches an information recording medium very similar to that of the present invention as recited in Claims 27 and 28.

For example, Lee teaches the following:

with respect to Claim 27, the recording medium (Fig. 1) comprising a plurality of recording layers to record therein the information (Fig. 1; column 9, lines 22-26), wherein at least one of the plurality of recording layers has a management information area (lead-in) to record therein at least (i) first recording condition information 30 (Fig. 1) which indicates a first optimum recording condition (such as OPC under a certain disc speed) for a first recording layer of the plurality of recording layers when the information is recorded into the

Art Unit: 2627

first recording layers (Figs. 3A and 3B; column 5, lines 4-16) and (ii), a second recording condition information 30 (Fig. 1) which indicates a second optimum recording condition (such as OPC under a certain disc speed) for a second recording layer of the plurality of recording layers when the information is recorded into the second recording layers (Figs. 3A and 3B; column 5, lines 4-16), at least (i) a first recording speed information 35 which indicates a first recordable maximum speed for the first recording layers (Figs. 3A and 3B); and (ii) a second recording speed information 35 which indicates a second recordable maximum speed for the second recording layers are recorded in the management information area, the first recording condition information (test zone data) 30 for the first recording layer is recorded in the management information area (lead-in), correspondingly to the first recording speed information (Fig. 1); the second recording condition information (test zone data) 30 for the second recording layer is recorded in the management information area (lead-in), correspondingly to the second recording speed information (Fig. 1); the management information area (Fig. 1; lead-in area) is disposed nearer an inner circumference in a top layer out of the plurality of recording layers and includes a portion in which the recording condition information 30 with respect to the plurality of



Art Unit: 2627

recording layers is collectively recorded (Figs. 1, 3A and 3B; maximum speed is collectively recorded in b4-b7), the first and second recording condition information (test zone data) include strategy information (Fig. 1; test zone stores data as strategic laser power calibration data).

Regarding Claim 35, the management area (lead-in) contains the first and second recording speed information (Fig. 4; column 5, lines 24-40).

However, Lee does not teach the following:

Regarding Claim 27, an information recording apparatus comprising a reading device for reading the recording condition information from the management information area.

Regarding to Claims 27 and 28, a recording speed setting device for setting a recording speed and the optimum recording condition corresponding to a recording target layer in which the information is to be recorded, on the basis of the read recording condition information.

Regarding Claim 27, a recording device for recording the information into the recording target layer at the set recording speed.

Ito teaches the following:

an information recording apparatus (Fig. 18) comprising a reading device 535 (column 22, lines 11 and 12) for reading the

Art Unit: 2627

recording condition information (Fig. 5; disc information, OPC information related to disc speed etc.) from the management information area (lead-in) (Figs. 16 and 19; step 602);

a recording speed setting device for setting a recording speed 509 (servo circuit in Fig. 18) corresponding to a recording target layer in which the information (disc information) is to be recorded, on the basis of the read recording condition information (Fig. 19; step 602; recording speed is controlled by the servo circuit); and

a recording device 535 (Fig. 18) for recording the information (OPC/speed) into the recording target layer at the set recording speed (Fig. 18).

A lead-in area in an optical storage medium is used to store disc operating information such as disc speed as disclosed in the prior art of Lee. Although Lee does not teach an information recording apparatus operated under the information stored in the lead-in area, however, to control the operation of read/write Lee's storage medium, it would have been obvious to one of ordinary skill in the art to apply an optical information apparatus such as Ito's to read/write Lee's lead-in operating information stored in the storage medium, because the reading/recoding and speed control devices such as Ito's can

Art Unit: 2627

access the stored disc optimum operating in the lead-in area and then operate the storage medium accordingly.

7. Claims 31 and 36 have limitations similar to those treated in the above rejection, and are met by the references as discussed above.

#### ***Related Prior Art***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al. (7,639,584) is pertinent because Kim teaches management information containing layer speed information.

#### ***Response to Remarks***

9. Applicant's Amendment and Remarks filed on November 17, 2009 have been fully considered but they are not persuasive.

Regarding to Claims 17, 20-23, 25, 26 and 33, Applicant states that nowhere in the prior art of Lee et al. (U.S. Patent 7,113,475) teaches "both (i) a first recording speed information and (ii) a second recording speed information are recorded in the management information area" (page 17 of the Remarks, second paragraph). Accordingly, Applicant's claimed management information area is a pre-information recorded from the

Art Unit: 2627

beginning of production of the information medium (section 67). This management area is located nearer the inner circumference in the top layer of the medium (section 72). Based on above teachings, the prior art of Lee discloses that speed information are recorded in the re-recordable zone 30/35 of the lead-in area (Fig. 3B; column 6, lines 39-51). Although the re-recordable zone 30/35 (Figs. 1 and 3B) is not labeled as "management area", it is well known that a lead-in area such as Lee's can be considered as a management area because it contains various medium control information (Fig. 1). Furthermore, the area 30/35 disposes on the inner circumference of the medium and is re-recordable which satisfy Applicant's requirement of the claimed management area.

**10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).**

**A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.**

Art Unit: 2627

11. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/  
Examiner AU2627  
April 22, 2010  
(571) 272-7585

/Peter Vincent Agustin/  
Primary Examiner AU2627